Enterprise Service Level Agreement

Prepared by

State of Indiana
Indiana Office of Technology

Prepared for

State of Indiana
Indiana Office of Technology Partner Agencies

Effective

July 2016 – June 2017
(This document is updated annually on July 1st)

Table of Contents

IOT Enterprise Service Level Agreement

Introduction

The Indiana Office of Technology (IOT) has partnered with many of the State of Indiana Agencies to consolidate and centralizing IT functions within five service areas. IOT partner agencies shall be supported with a new service delivery model that provides industry wide best practice service levels within these service areas. This **S**ervice **L**evel **A**greement (SLA) defines the requirements for IOT to provide levels of service that meet IOT and State Agency expectations.

Since technology and IOT services change through each year, this document will be updated annually on July 1 to reflect those changes. The current version is posted on the IOT website.

IOT Services Environment

This Indiana Office of Technology (IOT), Service Level Agreement (SLA) defines the service environment, service descriptions with roles and responsibilities, and service level requirements (SLRs) for providing State of Indiana Agencies with the following services:

- Customer Service provides an operational Level 2 Help Desk for the State of Indiana private network distributed computing environment as defined in the IOT Customer Services portion of this Service Level Agreement.
- Systems Administration services for administration and support of State of Indiana desktops, remote servers, and local (data center) servers as defined in the IOT Systems Administration Services portion of this Service Level Agreement.
- Network Services provides State of Indiana private network support, maintenance, and management as defined in the IOT Network Services portion of this Service Level Agreement.
- Field Operations provides for the support, maintenance, and management for the State of Indiana private network distributed computing environment as defined in the IOT Field Operations portion of this Service Level Agreement.
- Unified Communications provides for the support, maintenance, and management for the State of Indiana IP Telephony and Call Center environments as defined in the IOT Unified Communications portion of this Service Level Agreement.

IOT Service Level Agreement Components

This SLA is presented in sections. Each section provides the description and levels of service for an IOT service area as identified in the IOT Services Environment above.

The five sections are as follows:

1. Customer Services
2. Systems Administration Services
3. Network Services
4. Field Operations
5. Unified Communication Services

Each service area provides the following:

- Introductory description of the service area's support functions
- Service goals
- Service environment and facilities
- Hardware and software supported
- Roles and responsibilities of the service area
- Service level requirements that identify the levels of service to be provided

General Note: This SLA does **not** cover electric/power outages at remote sites.

IOT – Customer Service

Indiana Office of Technology (IOT) shall provide State of Indiana Agency customer service in the form of an end-user computing resource Customer Service desk. IOT shall be responsible for operating a single point of contact, level two Customer Service team in support of requests for computing for State of Indiana Agencies. IOT Customer Service shall provide support to the customer for all services and activities included in the scope of the agreement, including all Service Level Requirements.

IOT Customer Service Goals

IOT has established several goals for Customer Service. The overall goal is to provide measured high quality customer service in a cost-effective manner. A summary of the Customer Service goals are as follows:

1. Customer Service shall be the single point of contact to initiate solving State of Indiana customer's computing resource and information technology problems from processing a customer trouble call, and to request a development project.
2. Customer Service shall strive to meet the following Service Level Requirements
    a. Speed to Answer calls,
    b. Call Abandonment Rate,
    c. E-Mail Response Rate (via internally developed "Helpdesk Assistant"),
    d. 1st Level Call Resolution Rate,
    e. Customer Satisfaction.
3. Customer Service management tool(s) and the Automated Call Distribution (ACD) system shall provide data to:
    a. Track trends,
    b. Determine issues,
    c. Provide reporting for root cause analysis,
    d. Allow for appropriate reassignment of issues to other IOT service groups.

General Description of Service Environment and Facilities

IOT Customer Service shall provide services to all State of Indiana Agencies within the private network. The team operates 6am – 6pm Monday through Friday, with a small subset of the team working a few designated hours on weekends. Outside of these hours of operation a trouble call will be forwarded to a designated Customer Service standby staff.

IOT is located on the 5th floor of the Indiana Government Center North building.

Hardware and Software

All hardware and software used for the provision of Customer Service described in this Service Level Agreement are provided and supported by IOT.

Roles and Responsibilities

The following are the roles and responsibilities for providing Customer Services.

IOT Customer Service Roles and Responsibilities	
1.	Develop, document, approve, & implement procedures that meet requirements & policies.
2.	Provide a single point of contact for State of Indiana Agency customers to request assistance (service requests, problem notification, inquiries, etc…) for the specified coverage times indicated in Service Level Requirement (SLR).
3.	Provide a system to document, manage, and track all requests for service, problem reports, and inquiries regardless of the means by which the request is submitted (i.e. telephone, email, direct online input by end-users).
4.	Categorize, prioritize, and log all IT inquiries/problems/requests entered into the management and tracking system.
5.	Comply with all escalation and notification requirements.
6.	Track call data and statistics such as number of calls and calls abandoned; implement processes to minimize call abandonment.
7.	Create and maintain contact lists.
8.	Issue broadcasts and notifications to provide status updates as required.
9.	Prepare and issue service request and incident reports as required.
10.	Execute procedures for conducting end-user satisfaction surveys according to service level requirements.
11.	Maintain a continuous improvement program that improves help desk and telecommunications service desk service delivery.
12.	Adhere to all IOT security policies and procedures when resolving customer issues.

IOT Customer Service – Service Level Requirements

Customer Service Availability SLR		
Definition	Refers to the required timeframes when certain service provided by Customer Service must be available to users, and response to automatically generated trouble tickets is achieved.	
Availability	**Service Measure**	**Performance Target**
Normal Business Hours Support	Schedule	Mon – Fri, 0600 - 1800
Additional for BMV		Sat 0700 - 1300
After Hours (reduced) Support	Schedule	Mon – Fri, 1800 - 0600
		Sun – Sat, 0000 - 2400, Holidays

Customer Service Response Time SLR			
Definition	Response time is the number of seconds or cycles it take a Customer Service representative of IOT to connect with user seeking service.		
Availability	**Service Measure**	**Performance Target**	**SLR**
Speed to Answer	Phone response time	<= 60 seconds	**90%**
Call Abandonment rate	Phone response time	<= 5%	**98%**
E-mail response rate (via Helpdesk Assistant)	Online response time	<= 1 hour	**98%**
Formula	Number of events per event type per target/total number of events per type during measurement period = service level attained.		
Measure Interval	Measure daily, report monthly		
Measurement Tool	Provide auditing, monitoring, and reporting utilizing ticketing system and ACD. Time to answer and call volume statistics are tracked via the ACD and reported to Customer Service		

	manager.

Customer Service Incident Resolution SLR			
Definition	First Call Resolution – The desired percentage of total contacts planned for resolution at this level. First contact completion applies when the person the end-user reaches answers the question, resolves the problem, or dispatches service where appropriate. Warm transfers and call-backs should be considered second or greater contact. Severity in Resolution – Elapsed Time to Resolve following responses to different classes of system failure incidents severity level.		
Incident Resolution	**Service Measure**	**Performance Target**	**SLR**
First call resolution rate	Response Time	Resolution on first call	**90%**
Formula	Number of calls resolved per Target per type/Total number of calls per type received during measurement period = service level attained.		
Measure Interval	Measure daily, report monthly		
Measurement Tool	Provide auditing, monitoring, and reporting utilizing Ticketing System and ACD.		

Customer Service Customer Satisfaction SLR			
Definition	A subjective rating obtained through a combination of periodic client surveys and feedback from random follow-up calls where satisfaction is measured by a Yes or No answer to the Question: "Did you have a positive experience?"		
Customer Satisfaction	**Service Measure**	**Performance Target**	**SLR**
Random Follow Up	Response/Distribution Rate	5% of closed trouble tickets surveyed within 30 days of closing ticket.	**98%**
Periodic Sample Satisfaction	Customer Satisfaction Rate	Users surveyed should be "Positive."	**95%**
Formula	1. Number of responses with "Yes" rating/total number of responses. 2. Sum of survey results from each participant/total number of participants responding to periodic sample. 3. Sum of survey result from each participant/total number of participants responding to scheduled survey.		
Measure Interval	Measure monthly, report monthly.		
Measurement Tool	Customer Satisfaction Survey.		

IOT – Systems Administration Services

This Service Level Agreement defines the service environment, service descriptions with roles and responsibilities, and service level requirements (SLRs) for the provisioning of State of Indiana systems administration support services for State Agency end-users.

IOT Systems Administration Service Goals

IOT has established several goals for systems administration services. The overall goal is to provide high-quality Microsoft Active Directory, Exchange, mainframe / servers / server-based applications, storage and account management services to customers using the State of Indiana network in a cost-effective manner. A summary of the systems administration services goals follows:

1. Operating and monitoring computer systems workload to meet the processing requirements of the State of Indiana Agencies.
2. Managing, supporting, and administration of Windows and UNIX server systems located in the IOT data center and remote office data centers
3. Managing, supporting, and administration of shared storage systems and Storage Area Networks located in the IOT data center and remote office data centers
4. Administration of enterprise computing systems such as Microsoft Exchange, DNS, Anti-Virus applications and other State forest requirements.
5. Perform data backup functions and support backup systems.
6. Simplify and streamline administration and management services to facilitate smooth and efficient accommodation of service requests.

Work within the framework of the IOT Change Control Process.

General Description of Service Environment and Facilities

IOT Systems Administration Services shall provide State of Indiana Mainframe, Windows and UNIX server support and Microsoft Active Directory services to all State of Indiana Agency customers within the private network. Systems administration supports the State's Active Directory, Exchange, and the support and administration of all accounts within this framework. Systems administration services support shall include maintaining a complete backup of all systems residing within the IOT and remote office data centers (backup utilizing storage systems).

IOT Systems Administration Services are centrally located on the 5th floor of the Indiana Government Center North building.

Hardware and Software

The hardware supported by Systems Administration Services includes the following:

1. Configuration, administration, management, and maintenance related support functions for all servers located within the IOT Data Center and remote office data centers
2. Configuration, administration, management, and maintenance related support functions for all storage, networked storage, and backup systems
3. Miscellaneous hardware utilized for support systems administration and maintenance.

Software utilized to provide systems administration support includes the following:

1. Microsoft Server administrative tools
2. Microsoft Exchange system administrative tools
3. Microsoft's application manager
4. Symantec's network backup application

5. Symantec PureDisk Remote Office Edition
6. Symantec Enterprise Vault
7. EMC Control Center

Roles and Responsibilities

IOT Systems Administration Services Roles and Responsibilities	
1.	Develop, document, and approve systems administration policies and procedure.
2.	Monitor and control storage availability according to systems administration policies.
3.	Maintain storage resource facilities and space requirements.
4.	Setup, manage and delete user accounts, perform access control, manage files and disk space.
5.	Perform system or component configuration changes necessary to support Statewide enterprise computing services.
6.	Identify, coordinate and/or perform data center and/or facility changes needed to support installation of new or upgraded hardware.
7.	Install manufacturer field change orders, firmware upgrades, and other supplied hardware improvements.
8.	Replace defective parts and systems.
9.	Coordinate maintenance activities and repair third-party supported hardware.
10.	Manage warranties for hardware to ensure hardware under warranty is replaced under the terms of the warranty agreement.
11.	Perform capacity planning to develop resource requirements and projects.
12.	Manage computing data centers resources to ensure availability of adequate capacity at all times to meet IOT Statewide processing requirements.
13.	Provide technical advice and support to agency application development staffs as required.
14.	Evaluate, identify, and recommend configurations or changes to configurations that will enhance system availability
15.	Authorize and implement improvement plans.
16.	Review and approve systems engineering plans and schedules.
17.	Conduct testing of all new or upgraded equipment, software, or services to include unit, system, integration, and testing.
18.	Assess and communicate the overall impact and potential risk to existing operations prior to implementing changes.
19.	Coordinate implementation and migration support activities with the IOT help desk.
20.	Perform data migration from existing systems to new systems. Assist as needed during transitions.
21.	Perform software maintenance according to established procedures.
22.	Install/apply preventative maintenance releases and fixes, service packs, and other program services to ensure proper operation of installed software.
23.	Upgrade software to new versions/releases as needed to provide improved/enhanced functionality or to maintain current supported releases.
24.	Perform diagnostics as needed to identify the cause of software problems and report findings.
25.	Maintain web server operating system, including system updates and security patches.
26.	Create, manage, and maintain web structure and domains.
27.	Perform, manage, and track all storage and data backup according to prescribed IOT polices.
28.	Comply with all IOT hardware and software configuration management policies.
29.	Comply with all IOT systems security requirements.
33.	Provide technical assistance to help desk as required.
34.	Comply with all IOT asset management procedures and policies.

IOT Systems Administration Service – Service Level Requirements

System Server Administration SLR			
Definition	Actions taken by for proactive monitoring and intervention to minimize over capacity stressing. Also perform activities required to implement approved capacity and operational usage change requests.		
System Administration Task	**Service Measure**	**Performance Target**	**SLR**
Capacity/Performance • Continuously monitor server capacity, server performance, and storage capacity for defined threshold, provide alerts for anomalies. • Notify systems administration management staff when alerts are triggered or anomalies are identified on system resources	Accuracy of monitoring and reporting threshold alerts. Monitor cycle every 5 minutes. Response time to report	< 1 hour notification to Systems Administration Service Management of verification of trigger or anomaly identification.	**99%**
Capacity/Performance Planning • Trend Analysis and reporting across all platforms in Data Center(s) and remote office servers	Proactive daily monitoring and preemptive intervention to increase server and storage capacity	Weekly or Monthly analysis reports and interim reports on rapidly developing events and trend identification.	**98%**
Storage capacity change requests (change control)	Elapsed time	Increases/decreases of +/- 10% of installed capacity within 1 month	**98%**
Deploy service/security patches and anti-virus updates necessary to protect or repair environment vulnerabilities	Response Time	Same business day as signoff subject to agreed upon change control procedures	**99%**

Formula	Number of requests completed on time/total all of all requests occurring during the measurement period.
Measure Interval	Measure daily and weekly, report monthly
Measurement Tool	Windows based Server availability is monitored through MS Admin Tools. EMC storage is monitored using EMC Admin Tools.

Server/Mainframe Availability SLR	
Definition	Systems availability is defined as the server (CPU, system memory, disks, and peripherals) up to the connection to the network. All prescheduled systems downtime, unless otherwise agreed upon in advance, will occur: 1. For systems with 24x7x365 requirements, maintenance shall be performed between 600 and 1000 on Sunday. 2. For systems having non 24x7x365 requirements, maintenance shall be performed outside the normal system availability guidelines of 0600 to 1800 five days per week, or at the same time as the systems listed in (1) above.

System Server	Service Measure	Performance Target	SLR
Citrix Servers	Availability	Mon - Fri, 0600-1800	**99.9%**
Email Servers	Availability	Mon - Fri, 0600-1800	**99.9%**
Shared File Storage Systems	Availability	Mon - Fri, 0600-1800	**99.9%**
SQL Servers	Availability	Mon - Fri, 0600-1800	**99.9%**
Web/App Servers	Availability	Mon - Fri, 0600-1800	**99.9%**
Windows Servers	Availability	Mon - Fri, 0600-1800	**99.9%**
Mainframe - IBM	Availability	Mon - Fri, 0600-1800	**99.9%**
Mainframe - IMS Region	Availability	Mon - Fri, 0600-1800	**99.9%**
Mainframe - DB2 Connect	Availability	Mon - Fri, 0600-1800	**99.9%**

Formula	Availability (%) = 100% - Unavailability (%) Where Unavailability is defined as: (Outage Duration x 100%) / (Schedule Time – Planned Outage)
Measure Interval	Measure daily, report monthly
Measurement Tool	Windows based Server availability is monitored through MS Admin Tools.

Account Administration SLR	
Definition	Routine functions, such as setting up user ID's, changing user authorization and authentication tables, changing account codes and similar functions associated with configuration and administration of user accounts.

System Server	Service Measure	Performance Target	SLR
Disable User Account	Response Time	Within four (4) business hours of authorized request.	**98%**
New User Account	Response Time	Completed within two (2) business days of authorized request.	**99%**
Privilege/Rights Changes	Response Time	Completed eight (8) business hours of request.	**97%**

Formula	Number of tasks per type completed per target/total number of tasks per type performed within measured period.
Measure Interval	Measure monthly, report monthly
Measurement Tool	Windows based Server access utilizing MS Admin Tools.

IOT - Network Services

This Service Level Agreement defines the service environment, service descriptions with roles and responsibilities, and service level requirements (SLRs) for the provisioning of State of Indiana private network support services for State Agency end-users.

IOT Network Service Goals

IOT has established several goals for network services. The overall goal is to provide high-quality support services to customers using the State of Indiana physical network in a cost-effective manner. A summary of the network services goals follows:

1. Provide State of Indiana Agency customers support services including maintenance, administration, and management of the State of Indiana physical network.
2. Increase the operational performance, dependability, and reliability of the State of Indiana private network.
3. Perform proactive capacity planning for network facilities to ensure adequate bandwidth to all locations and 24x7 monitoring of network performance.
4. Develop and manage the State's private network extranet business partners and general public access to specified information and data.
5. Simplify and streamline network administration and management services to facilitate smooth and efficient accommodation of service requests.
6. Provide support for the expansion of a service oriented architecture, high performance infrastructure, and technologies when applicable such as secure wireless.
7. Work within the framework of the Change Control Process.

General Description of Service Environment and Facilities

IOT Network Services shall provide State of Indiana private network support services to all State of Indiana Agency customers within the private network. The State of Indiana private network comprises the IGC Campus Area Network, All Agency Local Area Networks including remote offices LAN's, and management and electronic monitoring of all Wide Area Networks utilized by such State Agency Customers. Support services shall include all network component maintenance (including repair and replacement), configuration and administration of network components, and management of the entire State of Indiana private network, including all networks described above, based upon specific agency maintenance programs with the product manufacturer or vendor. shall manage State of Indiana network through Layer seven (7).

IOT Network Services is located on the 5th floor of the Indiana Government Center North building.

Hardware and Software

The hardware utilized and supported by Network Services includes the following:

1. Router and switch models currently under maintenance. Upgrades and replacements will be standardized in the future.
2. Protocol analyzers and Intrusion Protection appliances.

Note: Replacement of equipment not under maintenance is the responsibility of the specific agency, and the IOT will provide direction for the replacement equipment.

Software utilized to provide network support includes the following:

1. Configuration Management
2. Inventory Management
3. Asset Management

Roles and Responsibilities

IOT Network Services Roles and Responsibilities	
1.	Develop, document, approve, and implement network support procedures that meet Network Services requirements and policies.
2	Provide maintenance, administration, and management of all supported State of Indiana private network components, devices, and peripherals.
4.	Manage efforts of ITN public carrier to meet defined schedules and project plans.
5.	Maintain IP node table, addressing schemes, router and switch configurations, routing tables, VPN configurations, and router system logs.
6.	Develop and adhere to daily, weekly, and monthly scheduled maintenance tasks as part of network management efforts.
7.	All changes in network configurations shall comply with the IOT change control process.
8.	Monitor network 24x7, with automated notification.
9.	Identify network problems involving circuits, hardware, software and others and resolve in accordance with established procedures. Coordinate activities with the help desk. Escalate as required.
10.	Coordinate resolution of circuit problems with public carrier – based on contractual obligations with the public carrier.
11.	Provide on-site staff during IOT normal business hours in State of Indiana facilities as required (e.g., to perform network maintenance and problem resolution activities).
12.	Provide technical assistance (e.g., respond to inquiries) as needed in support of the help desk, State Agency end users and external entities using the State of Indiana private network.
13.	Track and report status of network activities and problems via a trouble management system.
15.	Coordinate/perform facilities changes needed to support installation of New/upgraded network hardware.
16.	Install (or coordinate installation of) new or enhanced network hardware (e.g., routers, etc.) components to meet IOT and customer agency requirements.
18.	Replace defective parts on supported hardware, coordinate maintenance activities and repair of third-party provider-supported hardware, and monitor hardware warranties to ensure that parts under warranty are replaced under the terms of the warranty.
19.	Monitor private network component hardware warranties to ensure that parts under warranty are replaced under the terms of the warranty.
21.	Manage the technical configuration and ensure all network operating components are effectively integrated, and maintain network operating system software and network management utilities.
22.	Perform tuning across the Campus network.
23.	Manage network resources & devices to meet defined availability requirements (as specified in the Network Services SLR's).
24.	Provide technical advice and support to the application maintenance and development staffs as required.
25.	Evaluate, identify and recommend configurations or changes to configurations that will enhance network availability.
27	Develop, authorize, implement & improvement plans as appropriate.
29.	Document and maintain network specifications, configurations, topology and diagrams.

30.	Document and maintain inventory of all software used in managing the network environment, all supported hardware used in the network environment, and all supported network circuits and point-to-point connections in the State of Indiana private network environment.
31.	Prepare network engineering plans and schedules to support new and enhanced applications, architectures, and standards.
32.	Conduct pre-installation site surveys, as applicable, stage new and upgraded equipment and software to smoothly transition into production environment, and install new hardware and software components into production (e.g., routers, firewalls, RAS servers, etc.).
33.	Install/apply preventative maintenance releases and fixes, service packs, and other program services provided by manufacturers to ensure proper operation of installed operating systems as needed.

IOT Network Service – Service Level Requirements

Network Availability SLR	
Definition	Network availability is defined as the time during which the network is fully operational and functioning as specified, connectivity between the user and the application system(s) and server(s) is established, and normal business operations can be carried out with no data loss or downtime.
Pre-scheduled downtime requirements	All pre-scheduled system downtime, unless otherwise agreed upon in advance by will occur: • For networks having 24x7x365 requirements – All pre-scheduled maintenance shall be performed between the period beginning Sunday 600 to 1000, or • For networks having non-24x7x365 requirements – pre-scheduled maintenance shall be performed outside the normal system availability guidelines as specified below. * Must conform to IOT Change Management Guidelines.

Service Type	**Service Measure**	**Performance Target**	**SLR**
CAN Availability (Campus)	Fully Functional	Mon - Fri, 0600-1800	**99.9%**
Dial-Up Availability	Fully Functional	Mon - Fri, 0600-1800	**99.9%**
Switch Availability (Campus)	Fully Functional	Mon - Fri, 0600-1800	**99.9%**
VPN Availability	Fully Functional	Mon - Fri, 0600-1800	**99.9%**
WAN Availability (Remote Sites)	Fully Functional	Mon - Fri, 0600-1800	**98.9%**

Formula	Availability (%) = 100% - Unavailability (%) Where Unavailability is defined as: (Outage Duration x 100%) / (Schedule Time – Planned Outage)
Measure Interval	Monitor continuously, Measure daily, report monthly
Measurement Tool	Router and switch availability is measured utilizing appropriate & available network tools.

Network Administration Services SLR	
Definition	Routers to be managed proactively using either product-specific or proprietary network monitoring and management tools. Measurement for this network component is a 24x7x365 requirement. Pre-scheduled maintenance shall be performed between 0600 to 1000 hours on Sunday.

Administration Task	Service Measure	Performance Target	SLR
Allocate additional resources per pre-defined parameters and/or observed growth patterns.	Proactive monitoring and preemptive intervention to advise Agency/Customer of the need to increase capacity.	Sustained average daily utilization reaches 80% of installed capacity.	**99%**
Network Service capacity reallocation or change	Response time	Mon - Sat 0700 – 1800 < 24 hours	**99%**
Setup/Modify VPN & Dial-Up User ID or Authorization changes (password resets not included in this SLR)	Response Time; 1-5 Users ID's 6-10 Users ID's > 10 User ID's	Mon – Fri 0600 - 1800 < 4 hours of request < 8 hours of request Per Agreed upon time	**99%**

Formula	Transactions completed within required time/total transactions
Measure Interval	Monitor continuously, Measure daily, report weekly or monthly
Measurement Tool	Router and switch availability is measured utilizing appropriate & available network tools.

IOT – Field Operations

This Service Level Agreement defines the service environment, service descriptions with roles and responsibilities, and service level requirements (SLRs) for the provisioning of distributed computing services for State of Indiana Agencies end-users.

IOT Field Operations Goals

IOT has established several goals for Field Operations. The overall goal is to provide high quality desktop, remote server, and networked peripheral computing equipment support and maintenance service in a cost-effective manner. A summary of
IOT Field Operations goals follow:

1. Provide premier desktop and server support and maintenance at a reduced cost.
2. Lower the total cost of ownership – This could include more standardization of images and reduced images and more remote control diagnostics.
3. Maximize and optimize equipment performance - Improve configuration management and performance testing as equipment is deployed. This includes periodic evaluation of help desk calls to identify trends in equipment failure.
4. Minimize the number of desktop configurations – IOT is proceeding towards statewide standardization for all PCs and remote servers, when completed, everyone in the enterprise should be running on the same version of the standard software. Exceptions would only be those applications specific to certain areas.
5. Improve license management procedures – Management and version control of software licenses should be tracked to ensure both compliance and application currency.

General Description of Service Environment and Facilities

Field Operations are comprised of all support, maintenance, repair and/or replacement of State Agency's desktop PC's, remote servers, networked printers, and miscellaneous networked peripherals. Support includes all scheduled and non-scheduled (trouble call generated) maintenance. Approximately 30,000 desktops and remote servers are supported. Additional miscellaneous devices attached to the network may be included.

Hardware and Software

All hardware and software used for the provisioning of distributed services described in this Service Level Agreement are provided by IOT Field Operations.

Several remote desktop control software systems are utilized, and the appropriate desktop client, will be installed on all IOT supported desktops (client PC's).

Roles and Responsibilities

The following are IOT Service Operation's roles and responsibilities for providing Field Operations.

IOT Field Operations Roles and Responsibilities	
1.	Develop and document distributed computing operations and workload monitoring requirements and policies, including schedules for the operation of Field Operations. Ensure procedures developed meet requirements and adhere to defined policies.
2.	Manage and support test-to-production migration of desktop or remote server activities.
3.	Approve monitoring and problem resolution procedures.
4.	Monitor operation of distributed hardware and systems as scheduled.
5.	Answer and respond to inquiries and trouble resolution items (trouble tickets) and escalate in accordance with established notification procedures.
6.	Provide level 2 and 3 computing technical assistance for the help desk.
7.	Approve software deployment/management procedures.
8.	Manage software deployment, including the use of automated tools.
9.	Issue broadcasts to announce availability of upgrades to desktop and remote server software.
10.	Develop and implement desktop images/builds to meet State Agency business needs.
11.	Perform all State desktop and remote server software upgrades.
12.	Install new or enhanced hardware components or peripherals to meet State Agency computing and/or processing requirements.
13.	Perform diagnostics as required to identify cause of hardware problems, and report findings.
14.	Provide direct contact with dispatch for management of warranty maintenance and support.
15.	Install manufacturer changes, firmware upgrades, and other manufacturer supplied hardware improvements.
16.	Replace defective parts on non-warranty standard hardware, but not to exceed 80% of replacement value.
17.	Ensure all hardware maintenance activities conform to configuration management and change control processes.
18.	Perform tuning to maintain optimum performance across the distributed computing environment
19.	Provide technical advice and support to Customer Service staff as required.
20.	Evaluate, identify, and recommend configuration changes which will enhance distributed computing performance.
21.	Adhere to all configuration management requirements.
22.	Perform data migration from existing distributed systems to new systems.
23.	Provide technical assistance during all Agency remote and local office moves.
24.	Ensure all support activities adhere to defined security IOT requirements.

IOT Field Operations – Service Level Requirements

Deployment – New Workstation SLR			
Definition	The time required to deploy a single new desktop (client PC) or branch STARS workstation once the hardware has been received on-site at IOT. If IOT procures the equipment and bills back to agency, IOT will start the hardware procurement process and complete the Service Order Form to IOT procurement within 48 hours. More than 5 workstations will require a project be established.		
Distributed Task	**Service Measure**	**Performance Target**	**SLR**
New Workstation Deployment and Installation **Remote Office Moves** (All office moves will have a project established and measured against the project-based SLA)	Target time from time equipment received on-site. The network must be available prior to installation. Target time for IOT once advanced notification by agency for new site (remote office) is provided to ensure all requirements are met.	5 business days	**98%**
Formula	Request types completed <= SLA target/total request types completed within measurement interval = Service Level Attained		
Measure Interval	Measure monthly, report monthly		
Measurement Tool	Provide monitoring, auditing, and reporting tools.		

Workstation Peripheral and Software Installation SLR			
Definition	The time required to install desktop (client PC) peripherals and/or workstation software (max. of 5 devices or packages/request).		
Distributed Task	**Service Measure**	**Performance Target**	**SLR**
Approved Workstation Peripheral(s) and Software Installation (All non-std. items will have a project established and measured against the project-based SLA)	Target time from time received on-site. Target time from time received on-site.	3 business days 3 business days	**98%** **98%**
Formula	Request types completed <= SLA target/total request types completed within measurement interval = Service Level Attained		
Measure Interval	Measure monthly, report monthly		
Measurement Tool	Provide monitoring, auditing, and reporting tools.		

(BMV Only) Branch Move SLR			
Definition	The time required to setup new Branch location		
Distributed Task	**Service Measure**	**Performance Target**	**SLR**
Complete Branch Move	Target time from approved BMV possession date of new facility to actual Branch Opening	6 business days	**98%**
Formula	Request types completed <= SLA target/total request types completed within measurement interval = Service Level Attained		
Measure Interval	Measure monthly, report weekly		
Measurement Tool	Provide monitoring, auditing, and reporting tools.		

(BMV Only) Deployment – New Desk Phone SLR			
Definition	The time required to deploy a new desktop phone request workstation once the hardware has been received on-site at IOT Service Operations.		
Distributed Task	**Service Measure**	**Performance Target**	**SLR**
New Workstation Deployment and Installation	Target time from time received on-site for installation with data jacks available	5 business days	**98%**
	Target time from time received on-site for remote installations requiring new data jacks.	15 business days	**98%**
Workstation Removal	Target time from notification to remove to actual pick up of hardware	15 business days	**98%**
Formula	Request types completed <= SLA target/total request types completed within measurement interval = Service Level Attained		
Measure Interval	Measure monthly, report weekly		
Measurement Tool	Provide monitoring, auditing, and reporting tools.		

IOT - Unified Communication

This Service Level Agreement defines the service environment, service descriptions with roles and responsibilities, and service level requirements (SLRs) for the provisioning of State of Indiana IP Telephony, and Call Center for State Agency end-users.

IOT Telephony Service Goals

IOT Unified Communication Services has established goals for IP Telephony and Call Center services. The overall goal is to provide IP Telephony and Call Center services to customers using State of Indiana IOT Unified Communication services in a cost-effective manner. A summary of IOT Unified Communication services goals follows:

1. Operating and monitoring IOT Unified Communication workload to meet the business and processing requirements of the State of Indiana Agencies.
2. Managing, supporting, and administration of IOT Unified Communication server systems located in the IOT data center
3. Perform and/or coordinate system upgrade and patching functions.
4. Simplify and streamline administration and management of IOT Unified Communication services to facilitate smooth and efficient accommodation of service requests.

Work within the framework of the IOT Unified Communication Services Change Control Process.

General Description of Service Environment and Facilities

IOT Unified Communication Services shall provide State of Indiana IOT Unified Communication support to all State of Indiana Agency customers within the private network. IOT Unified Communication administration supports or facilitates the State's IOT Unified Communication systems, and the support and administration of all accounts within this framework.

IOT Unified Communication Services Systems Administration Services are centrally located on the 5th floor of the Indiana Government Center North building.

Hardware and Software

The hardware supported by IOT Unified Communication Services Systems Administration Services includes the following:

1. Perform and/or coordinate configuration, administration, management, and maintenance related support functions for all IP Telephony and Call Center systems
2. Coordinate the configuration, administration, management, and maintenance related support functions for all storage, networked storage, and backup systems
3. Miscellaneous hardware utilized for support systems administration and maintenance.

Software utilized to provide systems administration support may include, but is not limited to the following:

1. Microsoft Server administrative tools
2. Vendor Supported IP Telephony and Call Center system administrative tools
3. Coordinate the use of network backup application
4. SCCM system monitoring tools
5. Orion system monitoring tools

Roles and Responsibilities

Unified Communication Roles and Responsibilities	
1.	Develop, document, and approve systems administration policies and procedure.
2.	Monitor and coordinate storage availability according to systems administration policies.
3.	Coordinate storage resource facilities and space requirements.
4.	Perform and/or coordinate setup, manage and delete user accounts, perform access control, manage files and disk space.
5.	Perform and/or coordinate system or component configuration changes necessary to support Statewide enterprise IOT Unified Communication services.
6.	Identify, coordinate and/or perform data center and/or facility changes needed to support installation of new or upgraded hardware.
7.	Install manufacturer field change orders, firmware upgrades, and other supplied hardware improvements.
8.	Replace and/or coordinate defective parts and systems.
9.	Coordinate maintenance activities and repair third-party supported hardware.
10.	Manage warranties for hardware to ensure hardware under warranty is replaced under the terms of the warranty agreement.
11.	Manage software and annual license warranties and renewals under terms of vendor agreement.
12.	Perform capacity planning to develop resource requirements and projects.
13.	Manage computing data centers resources to ensure availability of adequate capacity at all times to meet IOT Statewide IOT Unified Communication processing requirements.
14.	Provide technical advice and support to agency application development staffs as required.
15.	Evaluate, identify, and recommend configurations or changes to configurations that will enhance system availability
16.	Authorize and implement improvement plans.
17.	Review and approve systems engineering plans and schedules.
18.	Conduct and/or coordinate testing of all new or upgraded equipment, software, or services to include unit, system, integration, and testing.
19.	Assess and communicate the overall impact and potential risk to existing operations prior to implementing changes.
20.	Coordinate implementation and migration support activities with the IOT help desk.
21.	Perform and/or coordinate data and system configuration migrations from existing systems to new systems. Assist as needed during transitions.
22.	Perform and/or coordinate software maintenance according to established procedures.
23.	Install/apply preventative maintenance releases and fixes, service packs, and other program services to ensure proper operation of installed software.
24.	Upgrade software to new versions/releases as needed to provide improved/enhanced functionality or to maintain current supported releases.
25.	Perform and/or coordinate diagnostics as needed to identify the cause of software problems and report findings.
26.	Manage and/or coordinate IOT Unified Communication server operating system, including system updates and security patches.
27.	Create, manage, and coordinate infrastructure architecture and domains.
28.	Coordinate, manage, and track all storage and data backup according to prescribed IOT polices.
29.	Comply with all IOT hardware and software configuration management policies.
33.	Comply with all IOT systems security requirements.
34.	Provide technical assistance to help desk as required.
35.	Comply with all IOT asset management procedures and policies.

IOT Unified Communication – Service Level Requirements

Unified Communication SLR			
Definition	Actions taken by IOT Unified Communication Services for proactive monitoring and intervention to minimize over capacity stressing. Also perform activities required to implement approved capacity and operational usage change requests.		
System Administration Task	**Service Measure**	**Performance Target**	**SLR**
Capacity/Performance • Continuously monitor server capacity, server performance, and storage capacity for defined threshold, provide alerts for anomalies. • Notify IOT Unified Communication Services systems administration management staff when alerts are triggered or anomalies are identified on system resources	Accuracy of monitoring and reporting threshold alerts. Monitor cycle every 5 minutes. Response time to report	< 1 hour notification to Systems Administration Service Management of verification of trigger or anomaly identification.	**99%**
Capacity/Performance Planning • Trend Analysis and reporting across all platforms in IOT Unified Communication Services Data Center(s) and remote office servers	Proactive daily monitoring and preemptive intervention to increase server and storage capacity	Weekly or Monthly analysis reports and interim reports on rapidly developing events and trend identification.	**98%**
Facilitate other IOT offered services for capacity change requests (change control)	Elapsed time	Increases/decreases of +/- 10% of installed capacity within 1 month	**98%**
Deploy service/security patches and anti-virus updates necessary to protect or repair environment vulnerabilities	Response Time	Same business day as signoff subject to agreed upon change control procedures	**99%**
Formula	Number of requests completed on time/total all of all requests occurring during the measurement period.		
Measure Interval	Measure daily and weekly, report monthly		
Measurement Tool	IOT Unified Communication Server availability is monitored through SCCM, MS Admin Tools and vendor provided tools.		

Unified Communication Server Availability SLR			
Definition	IOT Unified Communication availability is defined as the server (IP Telephony and Call Center application, CPU, system memory, disks, and peripherals) up to the connection to the network. All prescheduled systems downtime, unless otherwise agreed upon in advance by IOT Unified Communication Services, will occur: 1. For systems with 24x7x365 requirements, maintenance shall be performed between 600 and 1000 on Sunday. 2. For systems having non 24x7x365 requirements, maintenance shall be performed outside the normal system availability guidelines of 0600 to 1800 five days per week, or at the same time as the systems listed in (1) above.		
System Server	**Service Measure**	**Performance Target**	**SLR**
IP Telephony Servers	Availability	Sun - Sat, 0000-2359	**99.9%**
Call Center Servers	Availability	BMV M-F, 0600-1800 and BMV ITD Helpdesk Sat, 0730-1400 DCS Hotline 24x7x365 DCS Kidsline M-F, 0600-1800 DCS ISETS M-F, 0600-1800 DFR M-F, 0600-1800 DOR M-F, 0600-1800 DWD M-F, 0600-1800 and Sun 0900-1430 INDOT 24x7x365	**99.9%**
Formula	Availability (%) = 100% - Unavailability (%) Where Unavailability is defined as: (Outage Duration x 100%) / (Schedule Time – Planned Outage)		
Measure Interval	Measure daily, report monthly		
Measurement Tool	IP Telephony and Call Center based Server availability is monitored through SCCM, MS Admin Tools, and vendor provided tools.		

Unified Communication Account Administration SLR			
Definition	Routine functions, such as move, add, change, or disconnect (MACD), setting up user ID's, changing user authorization and authentication tables, changing account codes and similar functions associated with configuration and administration of user accounts.		
System Server	**Service Measure**	**Performance Target**	**SLR**
Disable User Account	Response Time	Within four (4) business hours of authorized request.	**98%**
New User Account	Response Time	Completed within two (2) business days of authorized request.	**99%**
Privilege/Rights Changes	Response Time	Completed eight (8) business hours of request.	**97%**

Formula	Number of tasks per type completed per target/total number of tasks per type performed within measured period.
Measure Interval	Measure monthly, report monthly
Measurement Tool	IP Telephony and Call Center Server access utilizing SCCM, MS Admin Tools and vendor provided tools.

IOT – Escalation Process

Standard Escalation Process:

Every "Ticket" that is created in the ticketing system has a "Target Resolution Time" associated with it. These times are associated with the following groups of ticket categories:

Target Res. Time	Major Ticket Category
8 Hrs	Account Management
16 Hrs	Applications
32 Hrs	Data Management
32 Hrs	Database
40 Hrs	Hardware
24 Hrs	Operating System
16 Hrs	Telecommunications
16 Hrs	Unified Communication

During Normal Business Hours:
Our Service Level Agreement states we must successfully resolve 90% of all Incidents within these Target Resolution Times to achieve a GREEN rating. To maximize the IOT's chances of meeting our Service Level Agreement, we have implemented an automated process to identify any Incident that has not been resolved within 75% of the allotted time, and notify via e-mail both the Manager responsible for the specific Incident, as well as the worker that has been assigned the Incident. These notifications continue every two hours during normal business hours until the Incident has been resolved.

After-Hours Escalation Process:
We provide some support outside of normal business hours. This service is typically limited to the simpler, routine customer issues, including issues like password resets, network printer resets, and emergencies. The after-hours Helpdesk (Data Center staff) has access to the IOT on-call list should an emergency arise.

Emergency Response Process
When the IOT is aware of a problem that is affecting many customers (network outages, server outages, etc.) we follow our Emergency Escalation Process.

The appropriate IOT support personnel are contacted by the Helpdesk immediately via the ticketing system and by phone if necessary. The Manager over the team responsible for resolving the issue is also contacted. If deemed appropriate by the Manager, the Director and/or the Chief of Staff are also informed. The Helpdesk updates our website Issue Notification Area detailing the issue, and the appropriate IT contact at the affected agencies is notified via e-mail. All required staff, including vendors if necessary, retain responsibility until the issue can be resolved.

IOT Monthly Incident Management Report (sample)

IOT Incident Managment Report
February 2016

Customer Service Area	Target	Tickets	Compliant	Compliance
Level 1 Resolution Rate	90% of Calls Resolved by Customer Service	3,243	3,149	97.1%
Email (HDA) Response Rate	98% Response within 1 IOT Business Hour	6,125	6,086	99.4%
User Sampling Survey	95% of Reports: 'Meets' to 'Outstanding'	1668	1595	95.6%
GMIS	80% of Calls Resolved within 24 IOT Bus Hrs	1,012	929	91.8%
Resolution Of Incidents On Time	90% of Calls Resolved On Time	13,075	12,256	93.7%
Account Management	Resolved within 8 IOT Business Hours	6,232	6,048	97.0%
Applications	Resolved within 16 IOT Business Hours	2,900	2,596	89.5%
Data Management	Resolved within 32 IOT Business Hours	521	487	93.5%
Database (SQL, Oracle)	Resolved within 32 IOT Business Hours	230	213	92.6%
Hardware	Resolved within 40 IOT Business Hours	1,982	1,813	91.5%
Network	Resolved within 40 IOT Business Hours	148	139	93.9%
Operating System	Resolved within 24 IOT Business Hours	162	154	95.1%
Telecomm	Resolved within 12 IOT Business Hours	599	519	86.6%
Unified Communications	Resolved within 16 IOT Business Hours	301	287	95.3%
Account Managment				
New Account Requests	99.0% Created within 2 IOT Business Days	1,716	1,705	99.4%
Disable Network Account Requests	98.0% Disabled within 4 IOT Business Hours	821	820	99.9%
Field Operations				
Peripheral & Softare Installations	98.0% Installed within 3 IOT Business Days	698	676	96.8%
New Workstation Installations	98.0% Installed within 5 IOT Business Days	84	80	95.2%

Customer Service Area	Target	Calls	Compliance
Call Abandonment Rate	Less than 5% Abandonment	8,659	5.8%
Speed to Answer Calls	90% Calls Answered Under 60 Seconds	8,072	71.3%
Network Availablity	**Target**	**Devices**	**Compliance**
CAN	99.9% within IOT Business Hours		99.8%
Switch	99.9% within IOT Business Hours		100.0%
VPN	99.9% within IOT Business Hours		99.9%
WAN	98.9% within IOT Business Hours		100.0%
Overall Average Mainframe Availablity			99.9%
DB2 Connect	99.9% within IOT Business Hours		99.9%
IBM Mainframe	99.9% within IOT Business Hours		99.9%
IMS Region	99.9% within IOT Business Hours		99.9%
Overall Average Windows, Linux Server Availablity		**1,190**	100.0%
Citrix (Farm)	99.9% within IOT Business Hours	146	100.0%
Email (Farm)	99.9% within IOT Business Hours	24	100.0%
Shared File	99.9% within IOT Business Hours	486	100.0%
SQL / Oracle	99.9% within IOT Business Hours	135	100.0%
Web / Applications	99.9% within IOT Business Hours	399	100.0%

In compliance Within Tolerance Out of compliance Insufficient data available this month